# FRONT PORCH SERIES
## BROADCAST CALLS

### Early Math for School Readiness
### Kids Play Math: An Overview

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## QUESTIONS FROM NOVEMBER 26, 2012 FRONT PORCH SERIES BROADCAST CALL

**Q:** If a program is out there that's already using Creative Curriculum, HighScope or some other curriculum, what does it mean to integrate Kids Play Math with another curriculum?

**A:** We developed Kids Play Math to be used with any curriculum. So Kids Play Math can be used with any curriculum that is being implemented by any Head Start [program]. The concepts that we teach with Kids Play Math work within any curriculum structure that's consistent with the Head Start Child Development and Early Learning Framework (HSCDELF). We looked at the HSCDELF and at current research, and those findings became the basis for what we did. The activities that we have in Kids Play Math should be activities that teachers are already doing within their curriculum, or very similar activities that teachers might do. So they could easily substitute activities. In addition, a number of the homework assignments asked teachers to create their own activities. So they may wish to take some of the activities that are already in their curriculum and apply them or use them as part of the homework.

**Q:** Do teachers actually provide instructions on how to play, or are the instructions already embedded in the game?

**A:** The instructions are embedded in the game. Because the activities have differing levels of difficulty, it's possible for a child to get to an activity that they're not sure how to play. So sometimes teachers have reported that they do need to show a child how to play the activity in certain circumstances. But usually once the children have tried it once, they find it quite easy to play the games on their own.

**Q:** Does the program calibrate to the user? If a child is pretty advanced and really cruising through with a quick response rate to items, does it automatically increase to meet their level?

**A:** That's what it does. We have a very nice system to track the kids. And as the kids answer questions, they move up quickly. We also have a way to move them down in case one of their friends gives them too many hints and they push to a level where they're not successful. We have a very flexible, self-calibrating tracking device.

The idea is that the games are presented at the right level. That's really important.

**Q:** Do you have any ideas about how Head Start programs can gain access to inexpensive or free computers in order to use this program?

**A:** I know some programs have successfully written grants to Apple and have received computers from Apple. We designed it to work for a classroom with one computer. Some classrooms we worked with had two computers, but we don't intend for the children to spend lots and lots of time playing the games. We want all the children to have the opportunity to play a little bit each week, both individually and with the teacher and a small group. It's really designed to enhance math instruction. We're not at all trying to replace the teacher. In fact, our results show that the teacher's learning was very, very important in improving achievements through the program.

Something else that I don't think we emphasize enough is: when the teacher takes the course we give a copy of the program to every kid in the classroom, which they can take home for free. Our data showed that most of the children's parents have a computer.

**Q:** That's really fantastic. It sounds like children can just take it home and start using it at home, and their parents can be involved in that. Is there training that parents can participate in to extend math at home?

**A:** One of the modules that we have in the online course orients teachers to providing a family math night, where they're supposed to invite families to come to their site and where the teachers will then work with those families on how to support early math. Not just by taking the programs home and putting them on the computer, but also in the family's everyday routines and the kinds of things that happen at home. So that's really an important part of what we do.

This helps the parents think about the ways that they can talk about math when they're setting the table for dinner or counting the number of pages that they have left in a book, for example.

**Q:** Have you looked at all the alignment between the objectives and the content and state early learning guidelines?

**A:** One of the things about state standards for early math that came out in the National Academy of Sciences Report from 2009 is that there isn't anything that is in all 49 state standards of the 49 states that had preschool standards at that time. The standards vary so widely that it's difficult to figure out what children should know from one state to another. The standards might not be very specific and also, the differences are quite large. So we concentrated on supporting the basic activities that research has shown are really helpful, that are consistent with the child development and early learning framework. That was our focus because it was a Head Start project and we want to make sure we support what's happening in Head Start. Because we included some advanced activities, we're pretty confident that we're supporting most of what is included in the state standards, even though they are quite variable.

**Q:** Can these games can be played on iPads or other mobile devices?

**A:** When we started this, I don't think iPads existed, so we didn't develop them for that. Currently, an iPad can't run the application that we use to run Kids Play Math on computers. However, we have to go this way, and this is our next project. It is part of the sustainability of the program. We got funding from Toyota to extend the games to kindergarten and first grade. In elementary schools, there's either the laptop cart or the iPad cart. This technological transition is what occupies most of our energy at the moment, extending the game to mobile platforms. We don't want to limit this to just the iPad; we also want them to play on the Android and we're debating the difficulties connected to that. But soon, I think in a year, that will happen.

**Q:** Does the software have the ability to aggregate up the assessment results of how children are doing in the math online games? Can you say anything more about the reports you generate?

**A:** There are two things to say about that. First, the report that you saw is very teacher and, especially, very family friendly. It only looks at some of the most important activities and shows the game progress. But there's another report that teachers can have access to that has full information about those hundreds of activities that you saw on the chart and how each child has done in each one.

The second thing is that we do include, within the reports and the course, a caveat about using the reporting system as a standalone. We don't encourage this practice at all because there is a certain amount of randomness in the games and a little difficulty in controlling how often different children play and how much they play. The reports are not designed to provide a diagnostic assessment, or a full assessment, of what children can do. The reports are mostly intended for teachers to be able to start their assessment and add it on to their current assessment procedures. It's a good supplement for other assessments. The teachers say it really helps them to do that.

In one of our pilot programs, they needed more information about a child that had an IEP, and about what was happening regarding their math. They said that it was very helpful to see both reports — the regular reports that they'd been working with and the report generated through Kids Play Math. It really helped them to know about the progress of math for that specific children.

**Q:** We have way more questions than we have time to ask, but many of the questions people are asking are about how they can get more information, if you're looking for any more pilot programs, and if there are any additional languages you're hoping to translate this into. Additionally, some people want to know if they can get the access to the games without taking the course — but I think that answer is "no." I'm going to encourage all of those people with further questions to contact you through your website, http://www.kidsplaymath.org. Thank you!

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